DRAFT RULEMAKING SHADING LEGEND

* Shaded text - Rule sections or subsections not suggested for revision. This text is only for reference.

* Unshaded Text - Rule sections or subsections that are suggested for revision.

* Boldface Text – Suggested language additions.

* Strikeout Text – Suggested language deletions.

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10 CSR 10-6.345 Control of NOx Emissions From Upwind Sources

(1) Applicability.
- (A) This rule shall apply to new emission sources or modifications in Perry, St. Genevieve, St. Francois, Washington, and Warren Counties that trigger Prevention of Significant Deterioration (PSD) review for nitrogen oxides (NOx); and
- (B) This rule shall apply to sources with a project-specific net emissions increase greater than nine hundred (900) tons of NOx during ozone season.
- (C) This rule will expire five (5) years from the effective date.

(2) Definitions for purposes of this rule.
- (A) Baseline emission inventory — The most current approved emission inventory for the state of Missouri that has been utilized in developing the State Implementation Plan, including attainment demonstration modeling, for the St. Louis ozone nonattainment area calculated on a tons per ozone season basis.
- (B) Ozone season — From May 1 through September 30 of each year.
- (C) Project-specific net emissions increase — The difference between permitted emissions to be emitted by the project that triggered PSD review and the baseline emission inventory for the applicable project.
- (D) Supplemental Emission Reductions (SER) = Potential to Emit – BACT controls – emission offsets – credits – 900 tons per ozone season.
- (E) Definitions of certain terms specified in this rule may be found in 10 CSR 10-6.020.

(3) General Provisions.
- (A) Sources that meet the applicability requirements of subsections (1)(A) and (1)(B) shall meet either the following requirements or the requirements of subsection (3)(B). The source shall apply one or more of the following emission reduction strategies sufficient to ensure that the overall emission increase for NOx does not exceed nine hundred (900) tons during the St. Louis ozone season:
  1. The source applies beyond-BACT emission controls to the PSD emission unit and/or accepts ozone-season operating limitations on the unit.

2. The source obtains 1:1 emission offsets for NOx emissions, under the Missouri emission banking and trading rule (10 CSR 10-6.410).
3. The source satisfies the requirements of subsection (3)(A) by being subject to a NOx cap and trade program where the total NOx tons emitted by all affected sources in the program is capped on an ozone season or annual basis and meets the following requirements:
    A. The newly constructed source is in full compliance with the NOx cap and trade program; and
    B. The actual NOx tons emitted during the ozone season in excess of nine hundred (900) tons required for compliance with the NOx cap and trade program is acquired from sources subject to the NOx cap and trade program located in the St. Louis 8 hour ozone nonattainment area or located in the same county as the source.
4. The source obtains Supplemental Emission Reductions (SERs). Capital funds for SER projects must be expended by the permittee, or transferred to a 3rd party trustee under contract to complete SER work, prior to operational startup of the new or modified emission unit that required PSD review.
    A. The minimum required SER is calculated as follows:
        (I) Determine the overall ozone season NOx emissions considering any emission controls, offsets, and credits from paragraphs (3)(A)1. through (3)(A)3. above; and
        (II) Subtract nine hundred (900) tons.
    B. In order to be approved, the SER measure must provide emission reductions that meet the criteria requirements described below:
        (I) Quantifiable – Emission reductions must be calculated for the time period for which the reductions will be used. Applicant must provide a detailed estimate of the amount and type of emissions that will be reduced, and a clear methodology as approved by the staff director for how the estimates were derived. The estimate must be based on EPA guidance if available, or best available scientific information;
        (II) Surplus – Emission reductions are generally surplus and can be used as long as they are not otherwise relied on to meet other applicable air quality attainment and maintenance requirements. In addition, to be considered surplus the emissions from control measures must be a part of the State Implementation Plan emission inventory;
        (III) Federally Enforceable – Control measures to reduce emissions must be enforceable through a permit issued under a SIP approved permitting program, or must meet enforceability requirements of EPA guidance for mobile source voluntary measures or stationary source emerging and voluntary measures; and

(IV) Permanent – The emission reductions must be permanent throughout the term that the emission reduction is used.

C. To qualify for SER credit for the retrofit of mobile source and nonroad equipment that operate primarily with the same county, or within the St. Louis ozone nonattainment area, the source must ensure the retrofit meets the following requirements:

(I) On-road equipment must not be greater than ten (10) years old at the time of retrofit;

(II) Retrofit of equipment with engines manufactured in year 2007 or later do not qualify for SER credit;

(III) If such equipment is not owned by the PSD permittee, the equipment owner must contractually agree to accept and maintain the retrofit equipment until the mobile source or equipment is sold or scrapped, and to meet condition (V). below;

(IV) These retrofit controls must be designed to reduce NOx and hydrocarbon emissions, though they may also control other pollutants; and

(V) When retrofitted mobile equipment is sold or scrapped, any replacement units must meet NOx and hydrocarbon emission rates at least as stringent as the retrofitted units.

D. The following mobile and nonroad retrofit equipment and replacement units are approved for SER credit, subject to subparagraph (3)(A)4.C, if applicable.

(I) Retrofit with oxidation catalyst.

(II) Conversion of gasoline or diesel engines to use exclusively natural gas, LPG, propane, or hydrogen.

(III) Replacement of an engine with an engine that meets California Air Resources Board or post-2007 federal emission requirements for new on-road or nonroad engines at the time of engine replacement.

(IV) Replacement of nonroad equipment powered with engines of nineteen (19) kilowatts or less, with equipment that meets federal emission requirements for new equipment of that type at the time of replacement. Equipment replaced must be operable at the time of replacement and rendered incapable of reuse afterwards.

(V) Replacement of portable gasoline containers used primarily within the St. Louis ozone nonattainment area, with portable containers that meet the spill control and permeability requirements of the California Air Resources Board. Portable containers replaced must be rendered incapable of reuse as a container.

E. The following emission reduction projects may be used to generate SER credit:

(I) NOx emission control equipment purchased with SER funds may be installed on existing stationary emission sources owned by a third party within the same county, or within the St. Louis ozone nonattainment area. VOC emission control equipment must be installed on existing stationary sources within the St. Louis ozone nonattainment area. The third party owner must contractually agree to accept and maintain the emission control equipment until the emission unit is retired, replaced, or fitted with replacement emission controls. The third party owner must also agree to make the controls federally enforceable. Resulting VOC or NOx emission reductions must exceed existing emission control levels and those required by any promulgated federal or Missouri rule;

(II) Installation of anti-idling support equipment. This equipment includes electrical service and cab heating/air conditioning for heavy duty truck or locomotive idling areas such as switch yards, truck stops, rest stops, and loading docks, located in the same county as the PSD emission source or in the St. Louis ozone nonattainment area; or

(III) Other emission reduction projects approved by the department. An approvable SER project will provide VOC or NOx emission reductions which would not occur otherwise in a timely manner.

(B) Sources subject to this rule may conduct regional transport modeling based on an approved protocol and submit the results to the Missouri Department of Natural Resource's Air Pollution Control Program for verification to demonstrate that post-control emissions of ozone precursors (NOx and VOC) from the new or modified emission source will not raise the predicted ozone level at any critical grid cell in the St. Louis fine-grid modeling domain more than one (1) ppb. Critical grid cells are those grid cells in the St. Louis nonattainment area where the maximum daily 8 hour ozone concentration, determined from the control case modeling, is equal to or greater than eighty (80) ppb. Modeled post-control emissions will account for on-site emission levels, and also could account for emission offset reductions obtained at other locations, if identifiable and not already considered in the baseline emission inventory after adjusting for any applicable local, state, or federal control measures. Supplemental Emission Reductions will not be considered in the modeling. Application of the model must meet minimum requirements set forth in written guidance issued by the department. A modeled impact on critical grid cells less than one (1) ppb using the procedures identified in the guidance shall be sufficient to meet this requirement.

(4) Reporting and Record Keeping. Any owner or operator of a source subject to this rule shall produce and maintain records demonstrating compliance with the rule requirements.

All records shall be maintained on site for a minimum of five (5) years and made available upon request.

(5) Test Methods.